

REMARKS

In view of the following remarks, the Examiner is respectfully requested to withdraw the rejections and allow Claims 21-45, as well as newly presented Claims 46-48, the only claims pending and currently under examination in this application.

Claim 21, 37, 38, 40 and 44 have been amended, and new Claims 46-48 have been added to further clarify and define the invention. Support for the amendment and new Claims 46-49 can be found in the paragraph beginning on p. 6, line 30 and the paragraph beginning on p. 11, line 4. Claims 22 and 24 have been amended for clarification. Support for these amendments can be found in the paragraph beginning on p. 4, line 3. Claim 26 has been amended for clarification. Support for this amendment can be found in the paragraph beginning on p. 5, line 22. Claims 33 and 34 have been amended for clarification. Support for these amendments can be found in the paragraph beginning on p. 4, line 23. Accordingly, no new matter has been added.

As no new matter has been added by way of these amendments, entry thereof by the Examiner is respectfully requested.

Claim Rejections - 35 U.S.C. § 112

Claims 22-24 and 33-35 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 22 and 24 have been amended to change "the drive pattern" to "said target drive pattern or said corrected drive pattern" in order to clarify the meaning of the claims. Support for this amendment can be found in the paragraph beginning on page 4, line 3 of the specification. Claim 33 has been amended from "the accuracy" to "an accuracy". Support for this amendment can be found in the specification on page 4, lines 24-30. Claim 34 has similarly been amended from "the accuracy" to "an accuracy". Support for this amendment can be found in the specification on page 4, lines 24-30.

In view of the above remarks, the rejections to Claim 22, dependent Claim 23, Claim 24, Claims 33 and 34, and dependent Claim 35 under 35 U.S.C. § 112, second paragraph, should be withdrawn.

Claim Rejections - 35 U.S.C. § 102(b)

Claims 21-45 have been rejected under 35 U.S.C. § 102 (b) as being anticipated by Blanchard (WO 98/41531).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The amended claims in the current application are drawn to an apparatus and methods for fabricating an addressable array of biopolymer probes on a substrate. An element of the rejected claims 21-37 and 40-45 is an apparatus which includes "...a sensor, which senses at least one operating parameter...wherein: said sensor views at least one of: a dispensing head; a nozzle; and a droplet pattern previously dispensed from said head..." An element of claims 38 and 39 is "...a sensor to sense the position of at least one fiducial mark on the dispensing head..." (independent Claim 38).

In contrast to the present invention, the sensor taught by Blanchard is positioned in his apparatus such that it cannot view the dispensing head or a nozzle.

Blanchard's Fig. 5 shows the synthesis system, Fig. 6 shows the inkjet print heads used in the system of Fig. 5, and Fig. 8 shows "an alignment unit" of Fig. 5 (see page 9, lines 11-19). The "print head assembly 24" of Fig. 6 "comprises two print heads 36, mounted within an aluminum block 38" (page 58, line 29). The print heads "are directed upwardly, to deposit liquid on a substrate that is positioned over the print heads" (page 59, lines 9-12). On the other hand the "Alignment unit 26 comprises a marker 50 and a camera [sensor] 52", and the marker "comprises a

diamond tip or point that can be raised or lowered in response to activation and deactivation by solenoid 54" to contact and mark an "adjacent substrate" (page 63, lines 6-17). Note that in Fig. 8 the marker 50 and the camera [sensor] 52 face upwardly (in the same direction as the print heads of print head assembly in Fig. 6). This is consistent with the marker being "raised or lowered" into contact with the substrate. Furthermore, after a mark is made on the substrate it can then be "positioned over lens 60" to have its position determined (page 64, lines 6-9).

Thus, from the above, it is apparent that Blanchard's print heads and camera [sensor] both face upwardly and the camera does not (and indeed, cannot) view the print heads or nozzle.

Furthermore, there is not teaching in Blanchard of viewing a previously dispensed droplet pattern.

As such, Claims 21-45 are not anticipated under 35 U.S.C. § 102 (b) by Blanchard (WO 98/41531) and this rejection should be withdrawn.


CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone Bret Field at (650) 327-3400.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,

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